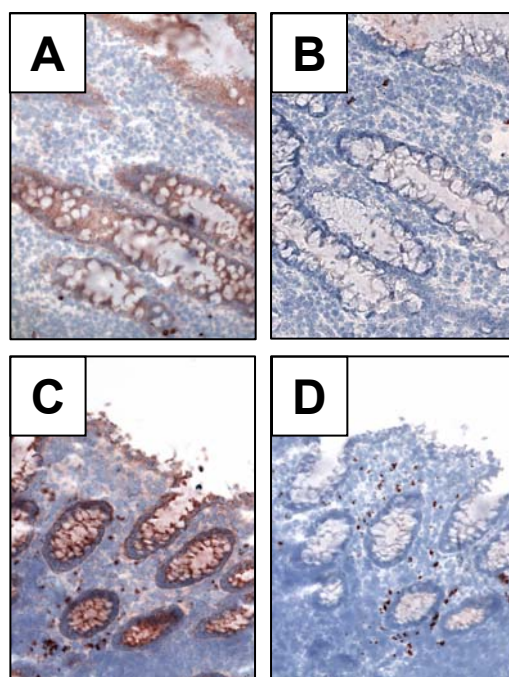
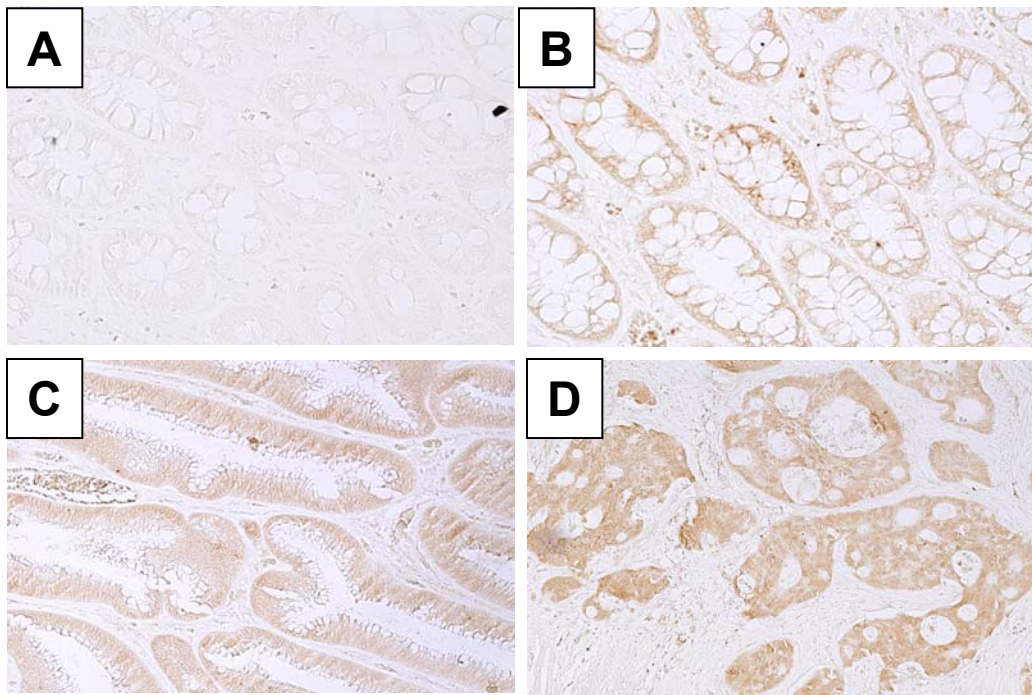


## Supplemental Figure 1.



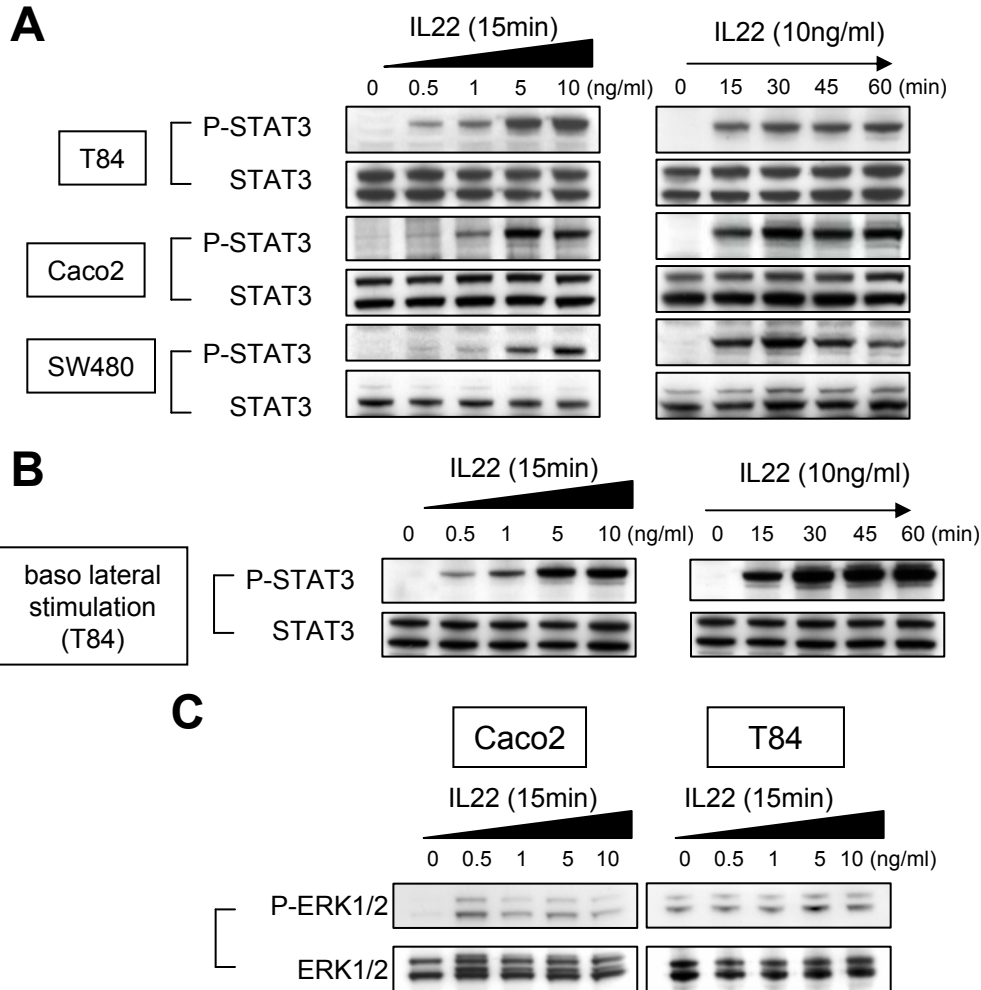
**Supplemental Figure 1.** Immunohistochemical findings of colon of UC (A,B) or CD (C,D) patients with anti-IL-22RA1 antibody (A,C) or isotype control (B,D) are shown.

## Supplemental Figure 2.



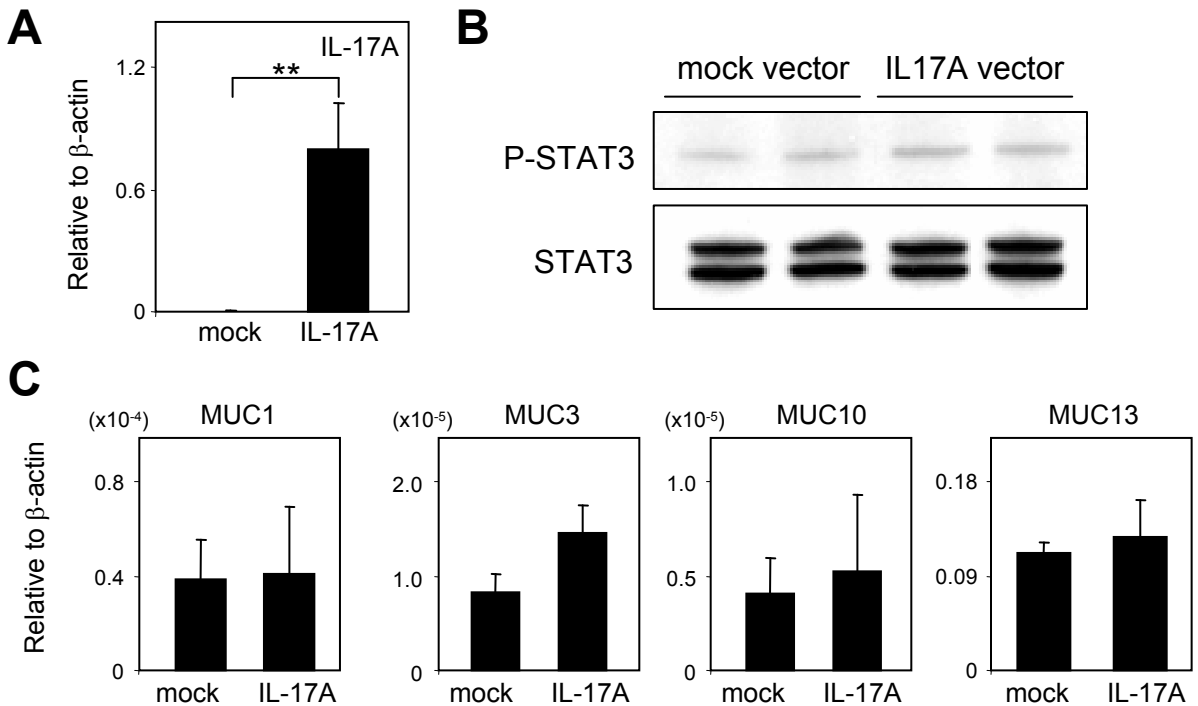
**Supplemental Figure 2.** Normal colon (A, B), adenoma (C), and adenocarcinoma (D) were subjected to immunohistochemical analysis with anti-IL-22RA1 Abs (B,C,D) or isotype control (A).

## Supplemental Figure 3.



**Supplemental Figure 3.** (A) Human colonic epithelial cell lines (T84, Caco2 and SW480) were stimulated with various doses of IL-22 for 15 min (left panels) or with a fixed doses of IL-22 (10 ng/ml) for several time periods (right panels). The protein lysates (10  $\mu$ g) were immunoblotted with anti-phospho STAT3 (P-STAT3) Ab. After stripping the Ab, the membrane was reprobed with anti-STAT3 Ab. (B) Confluent monolayer of T84 cells ( $>1000 \Omega \cdot \text{cm}^2$ ) on upper chamber were stimulated with various doses of IL-22 in the lower chamber for 15 min (left panels) or with IL-22 (10 ng/ml) for several time periods (right panels). The protein lysates were immunoblotted as described above. (C) Caco2 (left panels) and T84 (right panels) were stimulated without (0) or with various doses of IL-22 for 15 min. The protein lysates (10  $\mu$ g) were immunoblotted with anti-phospho ERK1/2 (P-ERK1/2) Ab. After stripping the Ab, the membrane was reprobed with anti-ERK1/2 Ab.

## Supplemental Figure 4.



**Supplemental Figure 4.** Complexes of IL-17A secretion or mock vector with DOTAP/enhancer reagent were microinjected into the proximal part of colon of WT mice (**A**). Expressions of IL-17A in the injected proximal part of colon are shown. The results represent the averages  $\pm$  SEM. **\*\* $p < 0.005$ .** (**B**) Protein lysates from the CECs of the proximal part of colon with mock or IL-17A gene delivery were subjected to immunoblot for evaluation of the STAT3 activation. (**C**) The expressions of MUCs by the CECs are shown. Expression of MUC5A was undetectable in the CECs